



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,479	09/22/2003	Lawrence Carl Smith	2002B132/2	2938
23455	7590	06/15/2006	EXAMINER	
EXXONMOBIL CHEMICAL COMPANY 5200 BAYWAY DRIVE P.O. BOX 2149 BAYTOWN, TX 77522-2149				RABAGO, ROBERTO
ART UNIT		PAPER NUMBER		
		1713		

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/668,479	SMITH ET AL.
	Examiner	Art Unit
	Roberto Rábago	1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 March 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-16, 18 and 23-37 is/are rejected.
- 7) Claim(s) 17 and 38 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

1. Prior rejection under 35 USC 112 is withdrawn. In view of Applicants' statements in combination with the cited sections of the specification, the claims are understood to implicitly require a polymerization step upon contact of catalyst and monomer in a polymerization reactor. Regarding conduit replacement, this step is understood to be independent of the polymerization process; however, it is a required step in the overall process which includes, at some point, a polymerization step.

***Claim Rejections - 35 USC § 103***

2. Claims 1-3, 11, 15, 16, 23, 24, 32, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson et al. (US 2,508,744) for the reasons set forth in item 5 of the Office letter mailed 1/26/2006.

Applicant's arguments filed 3/24/2006 have been fully considered but they are not persuasive. Applicants incorrectly state that the reference includes only one propylene feed; the primary propylene supply provides the first stream, and recycle line 10 provides the second stream (see Figure). Applicants further argue that the reference does not recognize the problem for which the claimed invention provides a solution; however, there is nothing in the claims which requires a plugging step, and there is nothing in the reference which indicates that plugging is a problem. Accordingly, applicants' argument is not relevant to this rejection. Applicants' final argument is ineffective because it presents arguments for features which are not present in the

claims. Applicants have expressly stated in their remarks that "the replacement of the first section of conduit may occur at any time before, during or after polymerization occurs," and is therefore not associated with any ongoing polymerization. Accordingly, the fact that the reference does not disclose an apparatus which permits one to perform certain maintenance procedures "while polymerization is ongoing" is irrelevant.

3. Claims 1-16, 18, and 23-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamshoum et al. (US 6,239,058).

The reference discloses in Figure 1 (see also col. 10) a propylene polymerization system comprising a catalyst/propylene inlet (line 16) and second propylene inlet (line 19). The catalyst comprises a supported metallocene in mineral oil (abstract; col. 2, lines 19-38; Examples I-XIV). The reference figure does not include valve locations, apparently because the intention is to emphasize the basic flow path. However, the inclusion of valves in each of the flow streams would be immediately envisaged by one of ordinary skill in the art because placement of valves in flow streams is nothing more than elementary process control. Although the reference has not disclosed the properties of the oil, the claimed properties would appear to be inherent because both the reference and applicants have used entirely conventional mineral oil.

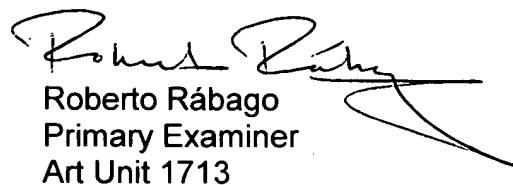
Although the reference does not disclose disassembly/reassembly of the conduit, one of ordinary skill in the art would be motivated to perform such tasks during routine maintenance, cleaning, and upgrading of the conduit and supporting polymerization apparatus.

4. Claims 17 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art cited on this record has not disclosed or reasonably suggested a polymerization method using a ZN catalyst in a system including the required plumbing configuration.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Roberto Rábago  
Primary Examiner  
Art Unit 1713

RR  
June 11, 2006